

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : W. Daniel Hillis, et al.
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TITLE : SPATIAL-TO-TEMPORAL DATA TRANSLATION AND
SCHEDULING AND CONTROL

Examiner : Savla, Arpan P.
Art Unit : 2185
Docket No. : SE1-0002C2-US
(formerly 0803-003-008-000000)
Customer No. : 80118

Mail Stop Appeal Brief
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APPELLANT'S BRIEF

Dear Madam or Sir:

This paper is responsive to the Final Office Action mailed February 6, 2009.

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I. REAL PARTY IN INTEREST

The real party in interest on this appeal is Searete, LLC by virtue of assignments of the inventors recorded on January 12, 2004, at Reel 014868 and Frame 0452. Searete, LLC is wholly owned by Intellectual Ventures Management LLC.

II. RELATED APPEALS AND INTERFERENCES

Appellant's legal representative and the real party in interest are unaware of any appeal or interference which will directly affect, be directly affected by, or have a bearing on the Board's decision in the present appeal.

III. STATUS OF CLAIMS

Claims 1-32 are pending. None of the claims have been cancelled. (*Please see Appendix A*).

Claims 1-32 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. (*Please see Final Office Action*, p. 3-4).

Claims 1-3, 5-7, 10-13, 17-19, 21-23, and 26-29 stand rejected under 35 USC §102(b) as being anticipated by Yao et al. (U.S. Patent 5,938,734) (hereinafter “Yao”). (*Please see Final Office Action*, p. 4-11).

Claims 14-16 and 30-32 stand rejected under 35 USC §103(a) as being obvious over Yao in view of Gallagher et al. (U.S. Patent 5,644,789) (hereinafter “Gallagher”). (*Please see Final Office Action*, p. 11-15).

Claims 4, 8-9, 20, and 24-25 were rejected under 35 U.S.C. §103(a) as being obvious over Yao in view of Jaeger (U.S. Patent 6,345,028) (hereinafter “Jaeger”). (*Please see Final Office Action*, p. 15-17).

Appellant appeals the rejections of claims 1-32 under 35 U.S.C. §101, §102(b), and §103(a).¹

All pending claims are attached as Appendix A.

¹ Appellant will eagerly and cooperatively work with the Examiner to resolve the Examiner’s objections to claims 17, 27 and 30 after the issues in this appeal have been resolved.

IV. STATUS OF AMENDMENTS

An Amendment filed April 9, 2007 in response to the Examiner's Non-Final Office Action mailed November 3, 2006 has been entered. Similarly, an Amendment filed February 11, 2008 (filed concurrently with a Request for Continued Examination) in response to the Examiner's Final Office Action mailed July 17, 2007 has been entered. In addition, an Amendment filed July 25, 2008 in response to the Examiner's Non-Final Office Action mailed March 25, 2008 has been entered. Finally, an Amendment filed November 5, 2008 in response to the Examiner's Notice of Non-Compliant Amendment mailed October 14, 2008 has been entered. No additional amendments were proposed by Appellant in response to the Examiner's Final Office Action mailed February 6, 2009, and therefore, no amendments have been refused entry by the Examiner.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The Examiner's rejections of three sets of claims² are appealed herein: (i) Independent Claim 1 and its Dependent Claims 2-16; and (ii) Independent Claim 17 and its Dependent Claims 18-32.

A. Summary of Independent Claim 1 and its Dependent Claims 2-16

Support for these claims appears throughout Appellant's application, and also in those specific locations specified below.

In one instance, a method includes determining an organization of at least one content of at least one spatial data storage system; defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times; and transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times. *See specification at, e.g., page 2, lines 10-14, page 13, lines 8-13, page 14, lines 15-17, page 15, lines 6-7 (Independent Claim 1).*

In another instance of the method, the determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, determining one or more storage locations of at least one spatial address device

² Appellant respectfully points out that in accordance with 37 CFR §41.37(c)(1)(v), Appellant herein provides a "summary of claimed subject matter [having a] concise explanation of the subject matter defined in each of the independent claims involved in the appeal, which shall refer to the specification by page and line number, and to the drawing, if any, by reference characters. For each independent claim involved in the appeal and for each dependent claim argued separately under the provisions of paragraph (c)(1)(vii) of this section, every means plus function and step plus function as permitted by 35 U.S.C. §112, sixth paragraph, must be identified and the structure, material, or acts described in the specification as corresponding to each claimed function must be set forth with reference to the specification by page and line number, and to the drawing, if any, by reference characters." However, Appellant respectfully points out that the herein-provided summary is illustrative only and is NOT intended to be in any way limiting. Appellant is providing this summary under protest that the USPTO's regulations in this area exceed its statutory authority (*e.g. are ultra vires*).

associated with a video recording. *See specification at, e.g., page 2, lines 16-19 (Dependent Claim 2).*

In one instance of the method, the determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, determining one or more storage locations of at least one spatial address device associated with at least one audio recording. *See specification at, e.g., page 2, lines 21-24 (Dependent Claim 3).*

In one instance of the method, the determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, determining one or more storage locations of at least one spatial address device associated with at least one audio-visual recording. *See specification at, e.g., page 2, lines 26-29 (Dependent Claim 4).*

In one instance of the method, the determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, determining one or more storage locations of at least one spatial address device associated with at least a portion of at least one of computer processable and network processable data. *See specification at, e.g., page 3, lines 1-4 (Dependent Claim 5).*

In one instance of the method, the determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, determining an organization of at least one content of at least one file address storage system. *See specification at, e.g., page 3, lines 5-8 (Dependent Claim 6).*

In one instance of the method, the determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, determining an organization of at least one content of at least one disk address storage system. *See specification at, e.g., page 3, lines 10-12 (Dependent Claim 7).*

In one instance of the method, the determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, determining an organization of at least one content of at least one tape address storage system. *See specification at, e.g., page 3, lines 14-16 (Dependent Claim 8).*

In one instance of the method, the determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, determining an organization of at least one content of at least one substantially static memory address storage system. *See specification at, e.g., page 3, lines 18-21 (Dependent Claim 9).*

In one instance of the method, the determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, determining an organization of at least one content of at least one object address storage system. *See specification at, e.g., page 3, lines 23-25 (Dependent Claim 10).*

In one instance of the method, the defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times includes, but is not limited to, defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices. *See specification at, e.g., page 3, lines 27 to page 4, line 2 (Dependent Claim 11).*

In one instance of the method, the defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices includes, but is not limited to, determining a first time interval during which a first segment of a first content will be read from a first spatial address device; determining a second time interval during which a first segment of a second content

will be read from a second spatial address device; and defining the schedule in response to the first time interval and the second time interval. *See specification at, e.g., page 4, lines 4-10 (Dependent Claim 12).*

In one instance of the method, the associating the defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices includes, but is not limited to, determining a first time interval during which a first segment of a first content will be read from a first spatial address device; determining a second time interval during which a second segment of the first content will be read from a second spatial address device; and defining the schedule in response to the first time interval and the second time interval. *See specification at, e.g., page 4, lines 12-18 (Dependent Claim 13).*

In one instance of the method, the defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times includes, but is not limited to, selecting a first content from a log of one or more data switch controller content requests. *See specification at, e.g., page 4, lines 20-24 (Dependent Claim 14).*

In one instance of the method, the selecting a first content from a log of one or more data switch controller content requests includes, but is not limited to, generating a prospective request for content from a data switch controller; and logging the prospectively generated request for content from the data switch controller. *See specification at, e.g., page 4, lines 26-30 (Dependent Claim 15).*

In one instance of the method, the generating a prospective request for content from a data switch controller includes, but is not limited to, consulting at least one

historical request for content from at least one data switch controller. *See specification at, e.g., page 5, lines 1-3 (Dependent Claim 16).*

B. Summary of Independent Claim 17 and its Dependent Claims 18-32

Support for these claims appears throughout Appellant's application.

In one instance, a system includes, but is not limited to, means for determining an organization of at least one content of at least one spatial data storage system; means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times; and means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times. *See specification at, e.g., page 2, lines 10-14, page 13, lines 8-13, page 14, lines 15-17, page 15, lines 6-7 (Independent Claim 17).*

In one instance of the system, the means for determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, means for determining one or more storage locations of at least one spatial address device associated a video recording. *See specification at, e.g., page 2, lines 16-19 (Dependent Claim 18).*

In one instance of the system, the means for determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, means for determining one or more storage locations of at least one spatial address device associated with at least one audio recording. *See specification at, e.g., page 2, lines 21-24 (Dependent Claim 19).*

In one instance of the system, the means for determining an organization of at least one content of at least one spatial data storage system includes, but is not limited

to, means for determining one or more storage locations of at least one spatial address device associated with at least one audio-visual recording. *See specification at, e.g., page 2, lines 26-29 (Dependent Claim 20).*

In one instance of the system, the means for determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, means for determining one or more storage locations of at least one spatial address device associated with at least a portion of at least one of computer processable and network processable data. *See specification at, e.g., page 3, lines 1-4 (Dependent Claim 21).*

In one instance of the system, the means for determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, means for determining an organization of at least one content of at least one file address storage system. *See specification at, e.g., page 3, lines 5-8 (Dependent Claim 22).*

In one instance of the system, the means for determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, means for determining an organization of at least one content of at least one disk address storage system. *See specification at, e.g., page 3, lines 10-12 (Dependent Claim 23).*

In one instance of the system, the means for determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, means for determining an organization of at least one content of at least one tape address storage system. *See specification at, e.g., page 3, lines 14-16 (Dependent Claim 24).*

In one instance of the system, the means for determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, means for determining an organization of at least one content of at least one substantially static memory address storage system. *See specification at, e.g., page 3, lines 18-21 (Dependent Claim 25).*

In one instance of the system, the means for determining an organization of at least one content of at least one spatial data storage system includes, but is not limited to, means for determining an organization of at least one content of at least one object address storage system. *See specification at, e.g., page 3, lines 23-25 (Dependent Claim 26).*

In one instance of the system, the means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times includes, but is not limited to, means for defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices. *See specification at, e.g., page 3, lines 27 to page 4, line 2 (Dependent Claim 27).*

In one instance of the system, the means for defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices includes, but is not limited to, means for determining a first time interval during which a first segment of a first content will be read from a first spatial address device; means for determining a second time interval during which a first segment of a second content will be read from a second spatial address device; and means for defining the schedule in response to the first time interval and the

second time interval. *See specification at, e.g., page 4, lines 4-10 (Dependent Claim 28).*

In one instance of the system, the means for defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices includes, but is not limited to, means for determining a first time interval during which a first segment of a first content will be read from a first spatial address device; means for determining a second time interval during which a second segment of the first content will be read from a second spatial address device; and means for defining the schedule in response to the first time interval and the second time interval. *See specification at, e.g., page 4, lines 12-18 (Dependent Claim 29).*

In one instance of the system, the means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times includes, but is not limited to, means for selecting a first content from a log of one or more data switch controller content requests. *See specification at, e.g., page 4, lines 20-24 (Dependent Claim 30).*

In one instance of the system, the means for selecting a first content from a log of one or more data switch controller content requests includes, but is not limited to, means for generating a prospective request for content from a data switch controller; and means for logging the prospectively generated request for content from the data switch controller. *See specification at, e.g., page 4, lines 26-30 (Dependent Claim 31).*

In one instance of the system, the means for generating a prospective request for content from a data switch controller includes, but is not limited to, means for

consulting at least one historical request for content from at least one data switch controller. *See specification at, e.g., page 5, lines 1-3 (Dependent Claim 32).*

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues in this response relate to whether the Examiner has met his burden of establishing a *prima facie* case sufficient to establish that Appellant's Claims 1-32 are unpatentable. Specifically, the issues are as follows:

1. Whether the Examiner has met his burden to show Claims 1-32 are directed to nonstatutory subject matter under 35 U.S.C. §101.
2. Whether the Examiner has met his burden to show Claims 1-3, 5-7, 10-13, 17-19, 21-23, and 26-29 are anticipated under 35 U.S.C. §102(b).
3. Whether the Examiner has met his burden to show Claims 4, 8-9, 14-16, 20, 24-25, and 30-32 are unpatentable under 35 U.S.C. §103(a).

VII. ARGUMENT: ART OF RECORD DOES NOT ESTABLISH *PRIMA FACIE* CASE OF UNPATENTABILITY IN VIEW OF CITED ART OF RECORD

Appellant respectfully asserts herein that, under the MPEP and legal standards for patentability as set forth below, the art of record does not establish a *prima facie* case of the unpatentability of Appellant's claims at issue. Specifically, Appellant respectfully shows below that the art of record does not recite the text of Appellant's claims at issue, and hence fails to establish a *prima facie* case of unpatentability. Accordingly, Appellant respectfully requests that the Board withdraw the rejections and hold all claims to be allowable over the art of record.

A. MPEP Standards for Patentability³

The MPEP states as follows: "the examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of

³ Appellant is aware that Examiner is familiar with the MPEP standards. Appellant is merely setting forth the MPEP standards to serve as a framework for Appellant's arguments following and to ensure a complete written record is established. Should Examiner disagree with Appellant's characterization of the MPEP standards, Appellant respectfully requests correction.

unpatentability. If that burden is met, the burden of coming forward with evidence or argument shifts to the Applicant. . . . If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of the patent.” MPEP § 2107 (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)); *In Re Glaug*, 283 F.3d 1335, 62 USPQ2d 1151 (Fed. Cir. 2002) (“During patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the Applicant is entitled to the patent.”). Accordingly, unless and until an examiner presents evidence establishing *prima facie* unpatentability, an Appellant is entitled to a patent on all claims presented for examination.

1. MPEP Standards for Determining Anticipation

An examiner bears the initial burden of factually supporting any *prima facie* conclusion of anticipation. *Ex Parte Skinner*, 2 U.S.P.Q.2d 1788, 1788-89 (B.P.A.I. 1986); *In Re King*, 801 F.2d 1324, 231 U.S.P.Q. (BNA) 136 (Fed. Cir. 1986); MPEP § 2107 (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992) (“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability....”). Failure of an examiner to meet this burden entitles an Applicant to a patent. *Id.* (“[i]f examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of the patent”).

The MPEP indicates that in order for an examiner to establish a *prima facie* case of anticipation of an Applicant’s claim, the examiner must first interpret the claim,⁴ and thereafter show that the cited prior art discloses the same elements, in the same arrangement, as the elements of the claim which the examiner asserts is

⁴ With respect to interpreting a claim at issue, the MPEP directs that, during examination -- as opposed to subsequent to issue -- such claim be interpreted as broadly as the claim terms would reasonably allow, in light of the specification, when read by one skilled in the art with which the claimed invention is most closely connected. MPEP § 2111.

anticipated. More specifically, the MPEP states that “[a] claim is anticipated *only if each and every element as set forth in the claim is found*, either expressly or inherently described, in a single prior art reference. . . . The identical invention must be shown in as complete detail as is contained in the . . . claim. . . . The elements must be arranged as required by the claim”. *MPEP* § 2131 (emphasis added). Consequently, under the guidelines of the MPEP set forth above, if there is *any* substantial difference between the prior art cited by an examiner and an Applicant’s claim which the examiner asserts is rendered anticipated by the prior art, the prior art does NOT establish a *prima facie* case of anticipation and, barring other rejections, the Applicant is entitled to a patent on such claim.

2. MPEP Standards for Determining Obviousness

"[T]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness."⁵ *MPEP* § 2142. The MPEP indicates that in order for an examiner to establish a *prima facie* case that an invention, as defined by a claim at issue, is obvious, the examiner must (1) interpret the claim at issue; (2) define one or more prior art reference components relevant to the claim at issue; (3) ascertain the differences between the one or more prior art reference components and the elements of the claim at issue; and (4) adduce objective evidence which establishes, under a preponderance of the evidence standard, a teaching to modify the teachings of the prior art reference components such that the prior art reference components can be used to construct a device substantially equivalent to the claim at issue. This last step generally encompasses two sub-steps: (1) adducement of objective evidence teaching how to modify the prior art components to achieve the individual elements of the claim at issue; and (2) adducement of objective evidence teaching how to combine the modified individual components such that the claim at

⁵ An invention, as embodied in the claims, is rendered obvious if an examiner concludes that although the claimed invention is not identically disclosed or described in a reference, the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *MPEP* § 2141 (citing 35 U.S.C. § 103).

issue, as a whole, is achieved. *MPEP* § 2141; *MPEP* § 2143. Each of these forgoing elements is further defined within the *MPEP*. *Id.*

This requirement has been explained recently by the Supreme Court in *KSR v. Teleflex*, 550 U.S. ____; 127 S. Ct. 1727 (2007) which noted that such a rejection requires "some articulated reasoning ... to support the legal conclusion of obviousness." As stated by the Court, obviousness can be established where "there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, *this analysis should be made explicit.*" (*emphasis added*) See *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) ('[R]jections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.')." *KSR v. Teleflex*, 550 U.S. ____; 127 S. Ct. 1727 at 1741.

As further described by the Court "*[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.*" Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known." *KSR v. Teleflex*, 550 U.S. ____; 127 S. Ct. 1727 at 1741.

a) Interpreting a Claim at Issue

With respect to interpreting a claim at issue, the *MPEP* directs that, during examination -- as opposed to subsequent to issue -- such claim be interpreted as broadly as the claim terms would reasonably allow when read by one skilled in the art with which the claimed invention is most closely connected. In practice, this is

achieved by giving each of the terms in the claim the "plain meaning" of the terms as such would be understood by those having ordinary skill in the art, and if portions of the claim have no "plain meaning" within the art, or are ambiguous as used in a claim, then the examiner is to consult the specification for clarification. *MPEP* § 2111.

**b) Definition of One or More Prior Art Reference
Components Relevant to the Claim at Issue**

Once the claim at issue has been properly interpreted, the next step is the definition of one or more prior art reference components (*e.g.*, electrical, mechanical, or other components set forth in a prior art reference) relevant to the properly interpreted claim at issue. With respect to the definition of one or more prior art reference components relevant to the claim at issue, the MPEP defines three proper sources of such prior art reference components, with the further requirement that each such source must have been extant at the time of invention to be considered relevant. These three sources are as follows: patents as defined by 35 U.S.C. § 102, printed publications as defined by 35 U.S.C. § 102, and information (*e.g.*, scientific principles) deemed to be "well known in the art"⁶ as defined under 35 U.S.C. § 102. *MPEP* § 2141; *MPEP* § 2144.

⁶ The fact that information deemed to be "well known in the art" can serve as a proper source of prior art reference components seems to open the door to subjectivity, but such is not the case. As a remedy to this potential problem, *MPEP* § 2144.03 states that if an examiner asserts that his position is derived from and/or is supported by a teaching or suggestion that is alleged to have been "well known in the art," and that if an Appellant traverses such an assertion (that something was "well known within the art"), the examiner must cite a reference in support of his or her position. The same MPEP section also states that when a rejection is based on facts within the personal knowledge of an examiner, the data should be stated as specifically as possible, and the facts must be supported, when called for by the Appellant, by an affidavit from the examiner. Such an affidavit is subject to contradiction or explanation by the affidavits of the Appellant and other persons. *Id.* Thus, all sources of prior art reference components must be objectively verifiable.

**c) Ascertainment of Differences between Prior Art
Reference Components and Claim at Issue;
Teaching to Modify and/or Combine Prior Art
Reference Components to Remedy Those
Differences in Order to Achieve Recitations of Claim
at Issue**

With one or more prior art components so defined and drawn from the proper prior art sources, the differences between the one or more prior art reference components and the elements of the claim at issue are to be ascertained. Thereafter, in order to establish a case of *prima facie* obviousness, an examiner must set forth a rationale, supported by objective evidence⁷ sufficient to demonstrate under a preponderance of the evidence standard, that in the prior art extant at the time of invention there was a teaching to modify and/or combine the one or more prior art reference components to construct a device practicably equivalent to the claim at issue.

The preferable evidence relied upon is an express teaching to modify/combine within the properly defined objectively verifiable sources of prior art. In the absence of such express teaching, an examiner may attempt to establish a rationale to support a finding of such teaching reasoned from, or based upon, express teachings taken from the defined proper sources of such evidence (*i.e.*, properly defined objectively verifiable sources of prior art). *MPEP* § 2144; *In re Dembiczak*, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999).

The MPEP recognizes the pitfalls associated with the tendency to subconsciously use impermissible "hindsight" when an examiner attempts to establish such a rationale. The MPEP has set forth at least two rules to ensure against the likelihood of such impermissible use of hindsight. The first rule is that:

under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information,⁸ the examiner must then make a determination whether the

⁷ The proper sources of the objective evidence supporting the rationale are the defined proper sources of prior art reference components, discussed above, with the addition of factually similar legal precedent. *MPEP* § 2144.

⁸ "Factual information" is information actually existing or occurring, as distinguished from mere supposition or opinion. *Black's Law Dictionary* 532 (5th ed. 1979).

claimed invention "as a whole" would have been obvious at that time to that person. Knowledge of an Applicant's disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences," conduct the search, and evaluate the "subject matter as a whole" of the invention. The tendency to resort to "hindsight" based upon an Applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

MPEP § 2142 (emphasis added). Thus, if the only objective evidence of such teaching to modify and/or combine prior art reference components is an Applicant's disclosure, no evidence of such teaching exists.⁹

The second rule is that if an examiner attempts to rely on some advantage or expected beneficial result that would have been produced by a modification and/or combination of the prior art reference components as evidence to support a rationale to establish such teachings to modify and/or combine prior art reference components, the *MPEP* requires that such advantage or expected beneficial result be objectively verifiable teachings present in the acceptable sources of prior art (or drawn from a convincing line of reasoning based on objectively verifiable established scientific principles or teachings). *MPEP* § 2144. Thus, as a guide to avoid the use of impermissible hindsight, these rules from the *MPEP* make clear that absent some objective evidence, sufficient to persuade under a preponderance of the evidence standard, no teaching of such modification and/or combination exists.¹⁰

⁹ An Appellant may argue that an examiner's conclusion of obviousness is based on improper hindsight reasoning. However, "[a]ny judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from Appellant's disclosure, such a reconstruction is proper." *MPEP* § 2145(X)(A) (emphasis added).

¹⁰ *In Re Sang Su Lee* 277 F.3d 1338 (Fed. Cir. 2002) ("When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness.") *See, e.g., McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 U.S.P.Q.2d 1001, 1008 (Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the *Graham* factors). "The factual inquiry whether to combine references must be thorough and searching." *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. *See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'") (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340,

B. Technical Material Cited by Examiner (Yao (US 5,938,734)) Does Not Show or Suggest the Text of Independent Claim 1 as Presented Herein; Notice of Allowance of Same Respectfully Requested

1. Independent Claim 1

Independent Claim 1 recites:

1. A method comprising:
determining an organization of at least one content of at least one spatial data storage system;
defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times; and
transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.

As shown following, the technical material cited by the Examiner does not show or suggest at least part of the text of Independent Claim 1. Accordingly, Appellant respectfully requests that The Board allow Independent Claim 1, as described more fully below.

1352, 48 U.S.P.Q.2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999) (“Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.”); *In re Dance*, 160 F.3d 1339, 1343, 48 U.S.P.Q.2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the Appellant); *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988) (“teachings of references can be combined only if there is some suggestion or incentive to do so.”) (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984)). The need for specificity pervades this authority. See, e.g., *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000) (“particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed”); *In re Rouffet*, 149 F.3d 1350, 1359, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (“even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.”)).

a) Technical Material Cited by Examiner Does Not Show or Suggest the Text of at Least Independent Claim 1.

As set forth above, Independent Claim 1 recites as follows:

1. A method comprising:
 - [a] determining an organization of at least one content of at least one spatial data storage system;
 - [b] *defining a schedule of content transmission* in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more *transmission times*; and
 - [c] *transmitting the content according to the schedule*, wherein the content is *addressable at the one or more transmission times*.¹¹ (Emphases added.)

With respect to claim 1, the Examiner has stated,

“Yao discloses a method comprising:

determining an organization of at least one content of at least one spatial data storage system (co. 6, lines 59-64; Fig. 4, element S18); *It should be noted that the “disk device” is analogous to the “spatial data storage system.*

and defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times (col. 7, lines 21-60; Fig. 5, elements S21-S25). *It should be noted that “carries out the scheduling” is analogous to “defining a schedule.”*”

(1) Examiner Citations to Yao With Regard to Clause [b] of Independent Claim 1:

Appellant respectfully points out that Appellant has reviewed the portions of Yao identified by the Examiner, and so far as Appellant can discern, Yao does not

¹¹ The lettering of the clauses herein is merely for sake of clarity of argument and should not be taken to imply any particular ordering of the clauses.

recite the text of clause [b] of Appellant's Independent Claim 1. Rather, the portions of Yao cited by the Examiner with respect to Claim 1 recite as follows:

When a request for supply of the real time stream data is received from a client 7 through the network 6 (step S21), the request connection processing unit 21 first obtains a directory information for the requested real time stream data from the directory management unit 23 (step S22). Then, the number m of unit streams to be used is obtained from the directory information (step S23), and as many stream structures in the scheduling unit 22 as necessary for holding information required in managing m pieces of unit streams are secured (reserved), while a necessary amount of regions in the buffer memory 4 are secured (reserved) (step S24).

Next, the scheduling unit 22 carries out the scheduling including a selection of transfer start timings for the unit streams S_0 to S_{m-1} to be used (step S25). Here, by the real time stream data storing procedure described above, m pieces of blocks $b(m \cdot \text{times} \cdot k + j)$ ($j=0, \dots, m-1$) which are continuous in the original real time stream data are sequentially distributed among the unit streams S_0 to S_{m-1} . Consequently, in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S_0 to S_{m-1} are displaced one another by the block transfer time T/m part.

Here however it is necessary for each one of the unit streams S_0 to S_{m-1} to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams. Note that the ID number of the disk device 31 which stores the top block of each unit stream can be obtained from the directory information obtained at the step S22. This time-slot selection operation will be described in detail below. When this condition is not satisfied, it is necessary to select different transfer start timings anew.

Each one of the unit streams S_0 to S_{m-1} so connected is then scheduled as an independent unit stream for which the block transfer time for one block is T/m , that is, scheduled according to the block transfer period T , the block size L , the time-slot interval I , and the block transfer time T/m . (col. 7, lines 21-60). ...

FIG. 5 is a flow chart of an operation for supplying real time stream data according to a request from external in the real time stream server.

Elements S21-S25 of Fig. 5 are steps of the operation shown in Fig. 5, including S25, which recites: "carry out scheduling of each unit stream."

See Yao (US 5,938,734 col. 7, lines 21-60; Fig. 5, elements S21-S25).

As can be seen from the foregoing, the Examiner-identified portions of Yao do not recite the text of clause [b] as recited in Independent Claim 1. For example, Yao discloses “the scheduling unit 22 carries out the scheduling including a selection of transfer start timings for the unit streams.” On the other hand, clause [b] of Claim 1 recites “*defining a schedule of content transmission* in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more *transmission times*;” (emphasis added). Neither the cited text nor Figure recite “*defining a schedule of content transmission*” or “the schedule expressly identifying the content by one or more *transmission times*”. Additionally, the Examiner asserts that *It should be noted that “carries out the scheduling” is analogous to “defining a schedule”, however, Appellant respectfully traverses the Examiner’s assertion.*

From the Yao citation above, the Yao reference describes:

“Next, the scheduling unit 22 *carries out the scheduling* including a *selection of transfer start timings for the unit streams S0 to Sm-1* to be used (step S25). Here, by the *real time stream data storing* procedure described above, *m pieces of blocks b(m.times.k+j) (j=0, . . . , m-1) which are continuous in the original real time stream data are sequentially distributed among the unit streams S0 to Sm-1. Consequently, in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time T/m.*

Here however *it is necessary for each one of the unit streams S0 to Sm-1 to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams.*” (Emphases added.)

From the above Examiner-identified portions of Yao, it is clear that the Yao scheduling unit carries out selection of transfer start timing for unit streams, but the unit streams are not *the original real time stream*, which is broken up into *m pieces of blocks...which are continuous in the original real time stream and sequentially distributed among the unit streams*. Moreover, *in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time T/m*. Yao continues, saying *it is necessary for each one of the unit streams S0 to Sm-1 to select a time-slot for*

carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams.

The last sentence above states that “it is necessary for each one of the Yao unit streams to select a time-slot for carrying out disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start time...”. This Yao passage describes reading the disk device (i.e., conventionally / spatially) for a top block before the selected Yao transfer start time. In other words, Yao does not recite *defining a schedule* and does not recite *the schedule expressly identifying the content by one or more transmission times* as recited in Appellant’s claim 1.

Appellant has reviewed the Examiner-cited portions of Yao and is unable to locate a recitation of clause [b] of Claim 1. Appellant further respectfully points out that the Examiner has provided no objectively verifiable evidence or reason as to why the text of the reference passages should be interpreted to teach clause [b] of Independent Claim 1 as the Examiner alleges.

Appellant respectfully notes: “[W]hat a reference teaches is a question of fact.” *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1358 (Fed. Cir. 2001) (referencing *In re Beattie*, 974 F.2d 1309, 1311 (Fed.Cir.1992)). See also *McGinley v. Franklin Sports*, 262 F.3d 1339, 1350 (Fed. Cir. 2001). Appellant respectfully submits that there is no proffered evidence that would support a finding of fact that Yao describes or teaches the text of clause [b] of Independent Claim 1. Under the guidelines from the *MPEP* and from the case law established by the Court of Appeals for the Federal Circuit, as set forth above, the cited art of record fails to suggest Independent Claim 1 for at least these reasons.

Given that Appellant has shown, above, what Yao actually recites, the question thus naturally arises as to how the Examiner saw Yao as “teaching” something related to Clause [b] of Independent Claim 1. Appellant respectfully points out that the Appellant’s Application is the only objectively verifiable examiner-cited document of record that shows or suggests what the Examiner purports the reference to teach. From this and the

express recitations of Yao as set forth, it follows that the Examiner is interpreting Jaeger through the lens of Appellant's application, which is impermissible hindsight use. Thus, at present, the Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a *prima facie* case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Appellant respectfully requests that the Board hold Independent Claim 1 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as the Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of the Examiner assertions regarding what the technical material cited by the Examiner "teaches," Appellant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if the Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." *See, e.g., MPEP S 2144.03(C), If Appellant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence, and 37 C.F.R. 1.104(d)(2).*

In view of the foregoing, and under the MPEP standards as set forth above, Appellant respectfully submits that the Examiner-cited technical material does not establish a *prima facie* case of the unpatentability of Independent Claim 1. Accordingly, for at least the foregoing reasons, Appellant respectfully asks The Board to hold amended Independent Claim 1 allowable and to issue a Notice of Allowance of same.

(2) Yao Does Not Show or Suggest Clause [c] of Independent Claim 1:

Furthermore, Appellant respectfully points out that Appellant has reviewed Yao thoroughly, and so far as Appellant can discern, Yao also does not recite the text of clause [c] of Appellant's Independent Claim 1, which recites, “*transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.*” Although Yao teaches “Each one of the unit streams S_0 to S_{m-1} so connected is then scheduled as an independent unit stream for which the block transfer time for one block is T/m , that is, scheduled according to the block transfer period T , the block size L , the time-slot interval I , and the block transfer time T/m ,” Yao fails to show or suggest “*transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times*” as recited in clause [c] of Appellant's Independent Claim 1.

Again, Appellant respectfully notes: “[W]hat a reference teaches is a question of fact.” *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1358 (Fed. Cir. 2001) (referencing *In re Beattie*, 974 F.2d 1309, 1311 (Fed.Cir.1992)). See also *McGinley v. Franklin Sports*, 262 F.3d 1339, 1350 (Fed. Cir. 2001). Appellant respectfully submits that there is no proffered evidence that would support a finding of fact that Yao describes or teaches the text of clause [c] of Independent Claim 1. Under the guidelines from the *MPEP* and from the case law established by the Court of Appeals for the Federal Circuit, as set forth above, the cited art of record fails to suggest Independent Claim 1 for at least these reasons.

Again, given that Appellant has shown, above, what Yao actually recites, the question thus naturally arises as to how Examiner saw Yao as “teaching” something related to Clause [c] of Independent Claim 1. Appellant respectfully points out that the Appellant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao as set forth, it follows that Examiner is interpreting Jaeger through the lens of Appellant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the *MPEP* guidelines as set forth above, the cited art of record fails to establish a *prima facie* case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons,

Appellant respectfully requests that The Board hold Independent Claim 1 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner “teaches,” Appellant infers that the Examiner is relying on “personal knowledge” and/or is taking “official notice” of one or more factors to reach the factual conclusion of what the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” *See, e.g.,* MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

In view of the foregoing, and under the MPEP standards as set forth above, Appellant respectfully submits that the Examiner-cited technical material does not establish a *prima facie* case of the unpatentability of Independent Claim 1. Accordingly, for at least the foregoing reasons, Appellant respectfully asks The Board to hold amended Independent Claim 1 allowable and to issue a Notice of Allowance of same.

2. Dependent Claims 2-16 Patentable for at Least Reasons of Dependency from Independent Claim 1.

Claims 2-16 depend either directly or indirectly from Independent Claim 1. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 2-16 are patentable for at least the reasons why Independent Claim 1 is patentable. Accordingly, Appellant respectfully requests that Examiner hold Dependent Claims 2-16 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

C. Technical Material Cited by Examiner (Yao (US 5,938,734)) Does Not Show or Suggest the Text of Independent Claim 17 as Presented Herein; Notice of Allowance of Same Respectfully Requested

1. Independent Claim 17

Independent Claim 17 recites:

A system comprising:

means for determining an organization of at least one content of at least one spatial data storage system;

means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times; and

means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.

As shown following, the technical material cited by Examiner does not show or suggest at least part of the text of Independent Claim 17. Accordingly, Appellant respectfully requests that The Board allow Independent Claim 17, as described more fully below.

a) Technical Material Cited by Examiner Does Not Show or Suggest the Text of at Least Independent Claim 17.

As set forth above, Independent Claim 17 recites as follows:

17. A system comprising:

[a] means for determining an organization of at least one content of at least one spatial data storage system;

[b] means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data

storage system, the schedule expressly identifying the content by one or more times; and

[c] means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.

With respect to claim 17, the Examiner has stated,

“Yao discloses a system comprising:

means for determining an organization of at least one content of at least one spatial data storage system (co. 6, lines 59-64; Fig. 4, element S18); *See the citation note for the similar limitation in claim 1 above.*

means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times (col. 7, lines 21-60; Fig. 5, elements S21-S25). *See the citation note for the similar limitation in claim 1 above.*”

**(1) Examiner Citations to Yao With Regard to
Clause [b] of Independent Claim 17:**

Appellant respectfully points out that Appellant has reviewed the portions of Yao identified by Examiner, and so far as Appellant can discern, Yao does not recite the text of clause [b] of Appellant's Independent Claim 17. Rather, the portions of Yao cited by Examiner with respect to Claim 17 recite as follows:

When a request for supply of the real time stream data is received from a client 7 through the network 6 (step S21), the request connection processing unit 21 first obtains a directory information for the requested real time stream data from the directory management unit 23 (step S22).

Then, the number m of unit streams to be used is obtained from the directory information (step S23), and as many stream structures in the scheduling unit 22 as necessary for holding information required in managing m pieces of unit streams are secured (reserved), while a necessary amount of regions in the buffer memory 4 are secured (reserved) (step S24).

Next, the scheduling unit 22 carries out the scheduling including a selection of transfer start timings for the unit streams S0 to Sm-1 to be used (step S25).

Here, by the real time stream data storing procedure described above, m pieces of blocks $b(m \cdot k + j)$ ($j=0, \dots, m-1$) which are continuous in the original real time stream data are sequentially distributed among the unit streams S_0 to S_{m-1} . Consequently, in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S_0 to S_{m-1} are displaced one another by the block transfer time T/m .

Here however it is necessary for each one of the unit streams S_0 to S_{m-1} to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams. Note that the ID number of the disk device 31 which stores the top block of each unit stream can be obtained from the directory information obtained at the step S22. This time-slot selection operation will be described in detail below. When this condition is not satisfied, it is necessary to select different transfer start timings anew.

Each one of the unit streams S_0 to S_{m-1} so connected is then scheduled as an independent unit stream for which the block transfer time for one block is T/m , that is, scheduled according to the block transfer period T , the block size L , the time-slot interval I , and the block transfer time T/m . (col. 7, lines 21-60).

...

FIG. 5 is a flow chart of an operation for supplying real time stream data according to a request from external in the real time stream server.

Elements S21-S25 of Fig. 5 are steps of the operation shown in Fig. 5, including S25, which recites: "carry out scheduling of each unit stream."

See Yao (US 5,938,734 col. 7, lines 21-60; Fig. 5, elements S21-S25).

As can be seen from the foregoing, the Examiner-identified portions of Yao do not recite the text of clause [b] as recited in Independent Claim 17. For example, Yao discloses "the scheduling unit 22 carries out the scheduling including a selection of transfer start timings for the unit streams." On the other hand, clause [b] of Claim 17 recites "*defining a schedule of content transmission* in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more *transmission times*;" (emphasis added). Neither the cited text nor Figure recite "*defining a schedule of content transmission*" or "the schedule expressly identifying the content by one or more

transmission times”. Additionally, the Examiner asserts that *It should be noted that “carries out the scheduling” is analogous to “defining a schedule”*, however, Appellant respectfully traverses this assertion .

From the Yao citation above, the Yao reference describes:

“Next, the scheduling unit 22 *carries out the scheduling* including a *selection of transfer start timings for the unit streams S0 to Sm-1 to be used* (step S25). Here, by the *real time stream data storing* procedure described above, *m pieces of blocks b(m.times.k+j) (j=0, . . . , m-1) which are continuous in the original real time stream data are sequentially distributed among the unit streams S0 to Sm-1. Consequently, in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time T/m.*

Here however *it is necessary for each one of the unit streams S0 to Sm-1 to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start timing, without affecting the continuity of the other already connected unit streams.”* (Emphases added.)

From the above Examiner-identified portions of Yao, it is clear that the Yao scheduling unit carries out selection of transfer start timing for unit streams, but the unit streams are not *the original real time stream*, which is broken up into *m pieces of blocks...which are continuous in the original real time stream and sequentially distributed among the unit streams*. Moreover, *in order to carry out the transfer of these blocks continuously, the transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time T/m*. Yao continues, saying *it is necessary for each one of the unit streams S0 to Sm-1 to select a time-slot for carrying out the disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer*

start timing, without affecting the continuity of the other already connected unit streams.

The last sentence above states that “it is necessary for each one of the Yao unit streams to select a time-slot for carrying out disk access, so that it becomes possible to read out the respective top block from the disk device 31 which stores that top block, before the selected transfer start time...”. This Yao passage describes reading the disk device (i.e., conventionally / spatially) for a top block before the selected Yao transfer start time. In other words, Yao does not recite *defining a schedule* and does not recite *the schedule expressly identifying the content by one or more transmission times* as recited in Appellant’s claim 17.

Appellant has reviewed the Examiner-cited portions of Yao and is unable to locate a recitation of clause [b] of Claim 17. Appellant further respectfully points out that the Examiner has provided no objectively verifiable evidence or reason as to why the text of the reference passages should be interpreted to teach clause [b] of Independent Claim 17 as the Examiner alleges.

Appellant respectfully notes: “[W]hat a reference teaches is a question of fact.” *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1358 (Fed. Cir. 2001) (referencing *In re Beattie*, 974 F.2d 1309, 1311 (Fed.Cir.1992)). See also *McGinley v. Franklin Sports*, 262 F.3d 1339, 1350 (Fed. Cir. 2001). Appellant respectfully submits that there is no proffered evidence that would support a finding of fact that Yao describes or teaches the text of clause [b] of Independent Claim 17 Under the guidelines from the *MPEP* and from the case law established by the Court of Appeals for the Federal Circuit, as set forth above, the cited art of record fails to suggest Independent Claim 1 for at least these reasons.

Again, given that Appellant has shown, above, what Yao actually recites, the question thus naturally arises as to how Examiner saw Yao as “teaching” something related to Clause [b] of Independent Claim 17. Appellant respectfully points out that the Appellant’s Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao as set forth, it follows that Examiner is interpreting Jaeger through the lens of Appellant’s application, which is impermissible hindsight use.

Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a *prima facie* case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Appellant respectfully requests that Examiner hold Independent Claim 17 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Appellant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

In view of the foregoing, and under the MPEP standards as set forth above, Appellant respectfully submits that the Examiner-cited technical material does not establish a *prima facie* case of the unpatentability of Independent Claim 17. Accordingly, for at least the foregoing reasons, Appellant respectfully asks The Board to hold amended Independent Claim 17 allowable and to issue a Notice of Allowance of same.

(2) Yao Does Not Show or Suggest Clause [c] of Independent Claim 17:

Furthermore, Appellant respectfully points out that Appellant has reviewed Yao thoroughly, and so far as Appellant can discern, Yao also does not recite the text of clause [c] of Appellant's Independent Claim 17, which recites, "means for *transmitting the content according to the schedule*, wherein the content is *addressable*

at the one or more transmission times.” Although Yao teaches “Each one of the unit streams S_0 to S_{m-1} so connected is then scheduled as an independent unit stream for which the block transfer time for one block is T/m , that is, scheduled according to the block transfer period T , the block size L , the time-slot interval I , and the block transfer time T/m ,” Yao fails to show or suggest “means for *transmitting the content according to the schedule*, wherein the content is *addressable at the one or more transmission times*” as recited in clause [c] of Appellant's Independent Claim 17.

Again, Appellant respectfully notes: “[W]hat a reference teaches is a question of fact.” *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1358 (Fed. Cir. 2001) (referencing *In re Beattie*, 974 F.2d 1309, 1311 (Fed.Cir.1992)). See also *McGinley v. Franklin Sports*, 262 F.3d 1339, 1350 (Fed. Cir. 2001). Appellant respectfully submits that there is no proffered evidence that would support a finding of fact that Yao describes or teaches the text of clause [c] of Independent Claim 17. Under the guidelines from the *MPEP* and from the case law established by the Court of Appeals for the Federal Circuit, as set forth above, the cited art of record fails to suggest Independent Claim 1 for at least these reasons.

Given that Appellant has shown, above, what Yao actually recites, the question thus naturally arises as to how Examiner saw Yao as “teaching” something related to Clause [c] of Independent Claim 17. Appellant respectfully points out that the Appellant’s Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao as set forth, it follows that Examiner is interpreting Jaeger through the lens of Appellant’s application, which is impermissible hindsight use. Thus, at present, Examiner’s assertions regarding Jaeger are untenable. Under the *MPEP* guidelines as set forth above, the cited art of record fails to establish a *prima facie* case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Appellant respectfully requests that Examiner hold Independent Claim 17 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner

“teaches,” Appellant infers that the Examiner is relying on “personal knowledge” and/or is taking “official notice” of one or more factors to reach the factual conclusion of what the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” *See, e.g.,* MPEP S 2144.03(C), *If Appellant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

In view of the foregoing, and under the MPEP standards as set forth above, Appellant respectfully submits that the Examiner-cited technical material does not establish a *prima facie* case of the unpatentability of Independent Claim 17. Accordingly, for at least the foregoing reasons, Appellant respectfully asks The Board to hold amended Independent Claim 17 allowable and to issue a Notice of Allowance of same.

2. Dependent Claims 18-32 Patentable for at Least Reasons of Dependency from Independent Claim 17.

Claims 18-32 depend either directly or indirectly from Independent Claim 17. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 18-32 are patentable for at least the reasons why Independent Claim 17 is patentable. Accordingly, Appellant respectfully requests that Examiner hold Dependent Claims 18-32 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

D. Technical Material Cited by Examiner (Yao in view of Gallagher (US 5,644,786)), Does Not Show or Suggest the Text of Claims 14-16 as Presented Herein; Notice of Allowance of Same Respectfully Requested

Claims 14-16 depend from Independent Claim 1. As remarked above, the Examiner has not established a prima facie case that the art of record anticipates Independent Claim 1.

Besides claims 14-16 being allowable because they include all the language of their allowable base claim 1, these claims are also allowable because in combining Gallagher with Yao, the Examiner has not established a prima facie case of obviousness with respect to claims 14-16. That is, Yao in view of Gallagher does not establish a prima facie case of obviousness for any of claims 14-16.

Gallagher describes a method for scheduling the execution of disk input/output operations, but the scheduling is directed to multiple process requests for read/write access to a disk memory device and constitutes conventional spatial storage retrieval operations, such as queuing process requests to the disk controller (see Abstract and e.g., col. 3, lines 61-63). Gallagher does not cure the deficiency of Yao in not showing or suggesting at least some of the elements of Appellant's claim 1. Thus, the combination fails to establish a prima facie case of obviousness.

Given that Appellant has shown, above, what Yao in view of Gallagher actually recites, the question thus naturally arises as to how Examiner saw Yao in view of Gallagher as "teaching" something related to Claims 14-16. Appellant respectfully points out that the Appellant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao in view of Gallagher as set forth, it follows that Examiner is interpreting Jaeger through the lens of Appellant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Appellant respectfully requests that Examiner hold Claims 14-16 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Appellant infers that the Examiner is relying on "personal knowledge" and/or

is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." *See, e.g.,* MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, under the MPEP standards as set forth above, the Examiner has not established a prima facie case that art of record renders unpatentable claims 14-16. Appellant respectfully asks the Board to hold claims 14-16 allowable and issue a Notice of Allowance of same.

1. Dependent Claims 14-16: Patentable for at Least Reasons of Dependency from Independent Claim 1.

In addition to the above remarks, claims 14-16 also depend either directly or indirectly from Independent Claim 1. "A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 14-16 are patentable for at least the reasons why Independent Claim 1 is patentable.

Given that Appellant has shown above what Yao and Gallagher actually recite, the question thus naturally arises as to how Examiner saw Yao and Gallagher as teaching clauses [a] and [b] of Independent Claim 1, or other recitations of dependent claims 14-16. Appellant respectfully points out that the Appellant's Application is the only objective examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and Yao and Gallagher's express recitations (see above), it follows that Examiner is interpreting Yao and Gallagher through the lens of Appellant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Yao and Gallagher are untenable.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner “teaches,” Appellant infers that the Examiner is relying on “personal knowledge” and/or is taking “official notice” of one or more factors to reach the factual conclusion of what the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, Appellant respectfully requests that Examiner hold Dependent Claims 14-16 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

E. Technical Material Cited by Examiner (Yao in view of Gallagher (US 5,644,786)), Does Not Show or Suggest the Text of Claims 30-32 as Presented Herein; Notice of Allowance of Same Respectfully Requested

Claims 30-32 depend from Independent Claim 17. As remarked above, the Examiner has not established a prima facie case that the art of record anticipates Independent Claim 17.

Besides claims 30-32 being allowable because they include all the language of their allowable base claim 17, these claims are also allowable because in combining Gallagher with Yao, the Examiner has not established a prima facie case of obviousness with respect to claims 30-32. That is, Yao in view of Gallagher does not establish a prima facie case of obviousness for any of claims 30-32.

Gallagher describes a method for scheduling the execution of disk input/output operations, but the scheduling is directed to multiple process requests for read/write access to a disk memory device and constitutes conventional spatial storage retrieval operations, such as queuing process requests to the disk controller

(see Abstract and e.g., col. 3, lines 61-63). Gallagher does not cure the deficiency of Yao in not reciting the elements of Appellant's claim 17. Thus, the combination fails to establish a prima facie case of obviousness.

Given that Appellant has shown, above, what Yao in view of Gallagher actually recites, the question thus naturally arises as to how Examiner saw Yao in view of Gallagher as "teaching" something related to Claims 30-32. Appellant respectfully points out that the Appellant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao in view of Gallagher as set forth, it follows that Examiner is interpreting Jaeger through the lens of Appellant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Appellant respectfully requests that Examiner hold Claims 30-32 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Appellant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, under the MPEP standards as set forth above, the Examiner has not established a prima facie case that art of record renders unpatentable claims 30-

32. Appellant respectfully asks the Board to hold claims 30-32 allowable and issue a Notice of Allowance of same.

1. Dependent Claims 30-32: Patentable for at Least Reasons of Dependency from Independent Claim 17.

In addition to the above remarks, claims 30-32 depend either directly or indirectly from Independent Claim 17. "A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 30-32 are patentable for at least the reasons why Independent Claim 17 is patentable.

Again, since Appellant has shown above what Yao and Jaeger actually recite, the question thus naturally arises as to how Examiner saw Yao and Jaeger as teaching clauses [a] and [b] of Independent Claim 17, or other recitations of dependent claims 30-32. Appellant respectfully points out that the Appellant's Application is the only objective examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and Yao and Jaeger's express recitations (see above), it follows that Examiner is interpreting Yao and Jaeger through the lens of Appellant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Yao and Jaeger are untenable.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Appellant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." *See, e.g.,* MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly*

Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence, and 37 C.F.R. 1.104(d)(2).

Accordingly, Appellant respectfully requests that Examiner hold Dependent Claims 30-32 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

F. Technical Material Cited by Examiner (Yao in view of Jaeger (US 6,345,028)), Does Not Show or Suggest the Text of Claims 4, and 8-9 as Presented Herein; Notice of Allowance of Same Respectfully Requested

Claims 4, and 8-9 depend from Independent Claim 1. As remarked above, the Examiner has not established a prima facie case that the art of record anticipates Independent Claim 1.

Besides claims 4, and 8-9 being allowable because they include all the language of their allowable base claim 1, these claims are also allowable because in combining Gallagher with Jaeger, the Examiner has not established a prima facie case of obviousness with respect to claims 4, and 8-9. That is, Yao in view of Jaeger does not establish a prima facie case of obviousness for any of claims 4, and 8-9.

Jaeger's method for direct recording and playback of multiple data tracks and signals uses temporal segments read from the disk and assembled into a composite data frame, but a time stamp associated with each composite data frame merely provides a conventional means for accessing the data on a spatial storage medium (see Jaeger, col. 5, lines 52-63). Jaeger does not cure the deficiency of Yao of not reciting the elements of Appellant's claim 1. Thus, the combination fails to establish a prima facie case of obviousness.

Given that Appellant has shown, above, what Jaeger in view of Gallagher actually recites, the question thus naturally arises as to how Examiner saw Jaeger in view of Gallagher as "teaching" something related to Claims 4 and 8-9. Appellant respectfully points out that the Appellant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to

teach. From this and the express recitations of Jaeger in view of Gallagher as set forth, it follows that Examiner is interpreting Jaeger in view of Gallagher through the lens of Appellant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons, Appellant respectfully requests that Examiner hold Claims 4 and 8-9 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Appellant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, under the MPEP standards as set forth above, the Examiner has not established a prima facie case that art of record renders unpatentable claims 4, and 8-9. Appellant respectfully asks the Board to hold claims 4, and 8-9 allowable and issue a Notice of Allowance of same.

1. Dependent Claims 4, and 8-9: Patentable for at Least Reasons of Dependency from Independent Claim 1.

In addition to the above remarks, claims 4, and 8-9 also depend either directly or indirectly from Independent Claim 1. "A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it

refers." *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 4, and 8-9 are patentable for at least the reasons why Independent Claim 1 is patentable.

Given that Appellants have shown above what Yao and Jaeger actually recite, the question thus naturally arises as to how Examiner saw Yao and Jaeger as teaching clauses [a] and [b] of Independent Claim 1, or other recitations of dependent claims 4, and 8-9. Appellants respectfully point out that the Appellants' Application is the only objective examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and Yao and Jaeger's express recitations (see above), it follows that Examiner is interpreting Yao and Jaeger through the lens of Appellants' application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Yao and Jaeger are untenable.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Appellant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." *See, e.g.,* MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, Appellant respectfully requests that Examiner hold Dependent Claims 4, and 8-9 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

G. Technical Material Cited by Examiner (Yao in view of Jaeger (US 6,345,028)), Does Not Show or Suggest the Text of Claims 20 and 24-25 as Presented Herein; Notice of Allowance of Same Respectfully Requested

Claims 20 and 24-25 depend from Independent Claim 17. As remarked above, the Examiner has not established a prima facie case that the art of record anticipates Independent Claim 17.

Besides claims 20 and 24-25 being allowable because they include all the language of their allowable base claim 17, these claims are also allowable because in combining Gallagher with Jaeger, the Examiner has not established a prima facie case of obviousness with respect to claims 20 and 24-25. That is, Yao in view of Jaeger does not establish a prima facie case of obviousness for any of claims 20 and 24-25.

Jaeger's method for direct recording and playback of multiple data tracks and signals uses temporal segments read from the disk and assembled into a composite data frame, but a time stamp associated with each composite data frame merely provides a conventional means for accessing the data on a spatial storage medium (see Jaeger, col. 5, lines 52-63). Jaeger does not cure the deficiency of Yao of not reciting the elements of Appellant's claim 17. Thus, the combination fails to establish a prima facie case of obviousness.

Given that Appellant has shown, above, what Yao in view of Jaeger actually recites, the question thus naturally arises as to how Examiner saw Jaeger in view of Gallagher as "teaching" something related to Claim 17. Appellant respectfully points out that the Appellant's Application is the only objectively verifiable examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and the express recitations of Yao in view of Jaeger as set forth, it follows that Examiner is interpreting Yao in view of Jaeger through the lens of Appellant's application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Yao in view of Jaeger are untenable. Under the MPEP guidelines as set forth above, the cited art of record fails to establish a prima facie case of unpatentability for at least these reasons. Accordingly, for at least the foregoing reasons,

Appellant respectfully requests that Examiner hold Claim 17 allowable and issue a Notice of Allowability of same.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner “teaches,” Appellant infers that the Examiner is relying on “personal knowledge” and/or is taking “official notice” of one or more factors to reach the factual conclusion of what the cited technical material “teaches.” In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner’s currently unsupported assertions regarding what the cited technical material “teaches” and/or should be interpreted to “teach.” *See, e.g.,* MPEP S 2144.03(C), *If Applicant Challenges a Factual Assertion as Not Properly Officially Noticed or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, under the MPEP standards as set forth above, the Examiner has not established a prima facie case that art of record renders unpatentable claims 20 and 24-25. Appellant respectfully asks the Board to hold claims 20 and 24-25 allowable and issue a Notice of Allowance of same.

1. Dependent Claims 20 and 24-25: Patentable for at Least Reasons of Dependency from Independent Claim 17.

In addition to the above remarks, claims 20 and 24-25 also depend either directly or indirectly from Independent Claim 17. “A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.” *See* 35 U.S.C. § 112 paragraph 4. Consequently, Dependent Claims 20 and 24-25 are patentable for at least the reasons why Independent Claim 17 is patentable.

Given that Appellants have shown above what Yao and Jaeger actually recite, the question thus naturally arises as to how Examiner saw Yao and Jaeger as teaching clauses [a] and [b] of Independent Claim 17, or other recitations of

dependent claims 20 and 24-25. Appellants respectfully point out that the Appellants' Application is the only objective examiner-cited document of record that shows or suggests what Examiner purports the reference to teach. From this and Yao and Jaeger's express recitations (see above), it follows that Examiner is interpreting Yao and Jaeger through the lens of Appellants' application, which is impermissible hindsight use. Thus, at present, Examiner's assertions regarding Yao and Jaeger are untenable.

In the alternative and/or in addition to the foregoing, as Examiner has provided no objectively verifiable evidence, nor argument based on objectively verifiable evidence, in support of Examiner assertions regarding what the technical material cited by Examiner "teaches," Appellant infers that the Examiner is relying on "personal knowledge" and/or is taking "official notice" of one or more factors to reach the factual conclusion of what the cited technical material "teaches." In view of the foregoing, if Examiner desires to maintain the rejection, in the next communication, Appellant respectfully requests that the Examiner provide an affidavit or declaration setting forth objectively verifiable evidence in support of Examiner's currently unsupported assertions regarding what the cited technical material "teaches" and/or should be interpreted to "teach." *See, e.g., MPEP S 2144.03(C), If Applicant Challenges a Factual Assertion as Not Properly Officially Notices or Not Properly Based Upon Common Knowledge, the Examiner Must Support the Finding with Adequate Evidence*, and 37 C.F.R. 1.104(d)(2).

Accordingly, Appellant respectfully requests that Examiner hold Dependent Claims 20 and 24-25 patentable for at least the foregoing reasons, and issue a Notice of Allowance on same.

VIII. REJECTIONS UNDER 35 USC § 101

Appellant has amended claims 1 and 17, yet the Examiner continues to maintain his rejections under 35 U.S.C. §101.

More specifically, Claim 1 has been amended to recite "transmitting the content," or more specifically, "transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times." Because transmitting content is a tangible result with utility in practical applications to produce real world

results, Appellant respectfully requests that the 35 USC 101 rejection be removed from claim 1.

Claims 2-16 depend from claim 1. Since dependent claims contain all the language of their base claim, Appellant respectfully requests that the 35 USC 101 rejection be removed from claims 2-16.

Similarly, claim 17 has been amended to recite “means for transmitting the content,” or more specifically, “means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.” Because means for transmitting content produces a tangible result with utility in practical applications to produce real world results, Appellant respectfully requests that the 35 USC 101 rejection be removed from claim 1.

Claims 18-32 depend from claim 17. Since dependent claims contain all the language of their base claim, Appellant respectfully requests that the 35 USC 101 rejection be removed from claims 18-32.

IX. EVIDENCE APPENDIX

Appellant hereby indicates as follows: “none” or “not applicable.”

X. RELATED PROCEEDINGS APPENDIX

Appellant hereby indicates as follows: “none” or “not applicable.”

XI. CONCLUSION

Appellant may have during the course of prosecution cancelled and/or amended one or more claims. Appellant notes that any such cancellations and/or amendments will have transpired (i) prior to issuance and (ii) in the context of the rules that govern claim interpretation during prosecution before the United States Patent and Trademark Office (USPTO). Appellant notes that the rules that govern claim interpretation during prosecution form a radically different context than the rules that govern claim interpretation subsequent to a patent issuing. Accordingly, Appellant respectfully submits that any cancellations and/or amendments during the course of prosecution should be held to be tangential to and/or unrelated to patentability in the event that such

cancellations and/or amendments are viewed in a post-issuance context under post-issuance claim interpretation rules.

Insofar as that the Appellant may have during the course of prosecution cancelled/amended/argued claims sufficient to obtain a Notice of Allowability of all claims pending, Appellant may not have during the course of prosecution explicitly addressed all rejections and/or statements in Examiner's Office Actions. The fact that rejections and/or statements may not be explicitly addressed during the course of prosecution should NOT be taken as an admission of any sort, and Appellant hereby reserves any and all rights to contest such rejections and/or statements at a later time. Specifically, no waiver (legal, factual, or otherwise), implicit or explicit, is hereby intended (e.g., with respect to any facts of which Examiner took Official Notice, and/or for which Examiner has supplied no objective showing, Appellant hereby contests those facts and requests express documentary proof of such facts at such time at which such facts may become relevant). For example, although not expressly set forth during the course of prosecution, Appellant continues to assert all points of (e.g. caused by, resulting from, responsive to, etc.) any previous Office Action, and no waiver (legal, factual, or otherwise), implicit or explicit, is hereby intended. Specifically, insofar as that Appellant does not consider the cancelled/unamended claims to be unpatentable, Appellant hereby gives notice that it may intend to file and/or has filed a continuing application in order prosecute such cancelled/unamended claims.

With respect to any cancelled claims, such cancelled claims were and continue to be a part of the original and/or present patent application(s). Appellant hereby reserves all rights to present any cancelled claim or claims for examination at a later time in this or another application. Appellant hereby gives public notice that any cancelled claims are still to be considered as present in all related patent application(s) (e.g. the original and/or present patent application) for all appropriate purposes (e.g., written description and/or enablement). Appellant does NOT intend to dedicate the subject matter of any cancelled claims to the public.

Appellant reserves the right to submit argument, rebuttal evidence, or legal authority in the instance the Board of Patent Appeals and Interferences finds that the

Examiner has met his burden in establishing a *prima facie* case of unpatentability of the various appealed claims. Appellant further reserves the right to submit argument, rebuttal evidence, or legal authority if new claim interpretations or definitional citations are raised on appeal. The fact that argument, rebuttal evidence, or legal authority may not have been explicitly discussed during the course of prosecution should NOT be taken as an admission or waiver of any sort, and Appellant hereby reserves any and all rights to discuss (e.g. make explicit, produce, or explain) such rebuttal evidence at a later time.

The Examiner is invited to contact the undersigned at (360) 627-7147 to discuss the above and any other distinctions between the claims and the applied references. Also, if the Examiner notes any informalities in the claims, he is encouraged to contact the undersigned to expediently correct such informalities.

Respectfully submitted,

__October 27th, 2009__

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APPENDIX A. APPENDIX OF CLAIMS INVOLVED IN THE APPEAL

1. (Previously Presented) A method comprising:

determining an organization of at least one content of at least one spatial data storage system;

defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times; and

transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.

2. (Original) The method of Claim 1, wherein said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining one or more storage locations of at least one spatial address device associated with a video recording.

3. (Original) The method of Claim 1, wherein said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining one or more storage locations of at least one spatial address device associated with at least one audio recording.

4. (Original) The method of Claim 1, wherein said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining one or more storage locations of at least one spatial address device associated with at least one audio-visual recording.

5. (Original) The method of Claim 1, wherein said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining one or more storage locations of at least one spatial address device associated with at least a portion of at least one of computer processable and network processable data.

6. (Original) The method of Claim 1, wherein said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining an organization of at least one content of at least one file address storage system.

7. (Original) The method of Claim 1, wherein said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining an organization of at least one content of at least one disk address storage system.

8. (Original) The method of Claim 1, wherein said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining an organization of at least one content of at least one tape address storage system.

9. (Original) The method of Claim 1, wherein said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining an organization of at least one content of at least one substantially static memory address storage system.

10. (Original) The method of Claim 1, wherein said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining an organization of at least one content of at least one object address storage system.

11. (Previously Presented) The method of Claim 1, wherein said defining a schedule of content transmission in response to the organization of the at least one content of the at

least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times further comprises:

defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices.

12. (Original) The method of Claim 11, wherein said defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices further comprises:

determining a first time interval during which a first segment of a first content will be read from a first spatial address device;

determining a second time interval during which a first segment of a second content will be read from a second spatial address device; and

defining the schedule in response to the first time interval and the second time interval.

13. (Original) The method of Claim 11, wherein said defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices further comprises:

determining a first time interval during which a first segment of a first content will be read from a first spatial address device;

determining a second time interval during which a second segment of the first content will be read from a second spatial address device; and

defining the schedule in response to the first time interval and the second time interval.

14. (Previously Presented) The method of Claim 1, wherein said defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times further comprises:

selecting a first content from a log of one or more data switch controller content requests.

15. (Original) The method of Claim 14, wherein said selecting a first content from a log of one or more data switch controller content requests further comprises:

generating a prospective request for content from a data switch controller; and
logging the prospectively generated request for content from the data switch controller.

16. (Previously Presented) The method of Claim 15, wherein said generating a prospective request for content from a data switch controller further comprises:

consulting at least one historical request for content from at least one data switch controller.

17. (Previously Presented) A system comprising:

means for determining an organization of at least one content of at least one spatial data storage system;

means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times; and

means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.

18. (Original) The system of Claim 17, wherein said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining one or more storage locations of at least one spatial address device associated a video recording.

19. (Original) The system of Claim 17, wherein said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining one or more storage locations of at least one spatial address device associated with at least one audio recording.

20. (Original) The system of Claim 17, wherein said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining one or more storage locations of at least one spatial address device associated with at least one audio-visual recording.

21. (Original) The system of Claim 17, wherein said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining one or more storage locations of at least one spatial address device associated with at least a portion of at least one of computer processable and network processable data.

22. (Original) The system of Claim 17, wherein said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one file address storage system.

23. (Original) The system of Claim 17, wherein said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one disk address storage system.

24. (Original) The system of Claim 17, wherein said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one tape address storage system.

25. (Original) The system of Claim 17, wherein said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one substantially static memory address storage system.

26. (Original) The system of Claim 17, wherein said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one object address storage system.

27. (Previously Presented) The system of Claim 17, wherein said means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times further comprises:

means for defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices.

28. (Original) The method of Claim 27, wherein said means for defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices further comprises:

means for determining a first time interval during which a first segment of a first content will be read from a first spatial address device;

means for determining a second time interval during which a first segment of a second content will be read from a second spatial address device; and

means for defining the schedule in response to the first time interval and the second time interval.

29. (Original) The system of Claim 27, wherein said means for defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices further comprises:

means for determining a first time interval during which a first segment of a first content will be read from a first spatial address device;

means for determining a second time interval during which a second segment of the first content will be read from a second spatial address device; and

means for defining the schedule in response to the first time interval and the second time interval.

30. (Previously Presented) The system of Claim 17, wherein said means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more times further comprises:

means for selecting a first content from a log of one or more data switch controller content requests.

31. (Original) The system of Claim 30, wherein said means for selecting a first content from a log of one or more data switch controller content requests further comprises:

means for generating a prospective request for content from a data switch controller; and

means for logging the prospectively generated request for content from the data switch controller.

32. (Original) The system of Claim 31, wherein said means for generating a prospective request for content from a data switch controller further comprises:

means for consulting at least one historical request for content from at least one data switch controller.

APPENDIX B. APPENDIX OF EVIDENCE (NOT APPLICABLE).

APPENDIX C. APPENDIX OF RELATED PROCEEDINGS (NOT APPLICABLE).